

DOCUMENT RESUME

ED 078 727

HE 004 043

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TITLE A Conceptual Framework for Theories in Higher Education.  
PUB DATE Feb 73  
NOTE 8p.; Paper presented at the American Educational Research Association Symposium on Theories of Higher Education, March 1, 1973  
  
EDRS PRICE MF-\$0.65 HC-\$3.29  
DESCRIPTORS Educational Environment; \*Educational Philosophy; Educational Principles; \*Educational Theories; \*Higher Education; \*Speeches

ABSTRACT

In this paper the author attempts to offer a conceptual framework on which to hang some theories of higher education. These theories can be couched in the context of six major concepts: (1) outcomes or the products or results of the activities of institutions of higher education; (2) institutions or the structures that perform higher educational activities; (3) goals or the purposes, intentions, and objectives of higher education; (4) people or the individuals and groups of individuals involved in the activities of institutions of higher education; (5) activities or the characteristic, goal-seeking functions of people in institutions of higher education; and (6) environments or the settings wherein institutions of higher education pursue their goals. Using the outcomes concept as the point of departure, as the dependent variable, the author explores the beginnings of some theories as they relate to (1) student development outcomes, (2) research outcomes, and (3) societal impact outcomes. (HS)

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A  
CONCEPTUAL FRAMEWORK  
FOR  
THEORIES IN HIGHER EDUCATION

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February, 1973

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Professor Tostberg in his opening statement has provided a framework within which those of us who follow should try to operate. In so doing he has both helped us and placed before us a dimension to theory building in higher education which certainly will give us some trouble.

He seems to be saying, if I understand him correctly, that some theories of higher education will hopefully prove helpful in predicting, given a certain body of facts, what will happen in a given set of circumstances. If, for instance, I know enough about the variables involved, I can anticipate certain developmental changes in my students when I pursue a given instructional strategy. But Professor Tostberg also hopes that theories of higher education will help me to decide whether as an instructor I actually should undertake the change, either in terms of the direction in which I would have my students change or in terms of the strategy I would use in producing that change. This "ought" question, the troublesome second dimension of Professor Tostberg's presentation, does not lend itself to easy answers.

Quite frankly, my major efforts--until Professor Tostberg recently shared his concerns with me--have focused on the first of these two realms, theories which tell the individual, given enough information about a given phenomenon in higher education, what he might expect from that phenomenon. The great bulk of what I shall say here today relates to that first realm. But first I must try to respond to the troublesome Tostberg second dimension. I should like to do so in this way. A theory of higher education, in order to meet the criterion set for it by Professor Tostberg, must provide its user with guidance on the "ought" question. In the language I shall introduce very shortly, the goals of institutions of higher education and the people associated with them require judging in terms of the outcomes to which they lead, outcomes which contribute to the well being of the external

societal environment within which these institutions and people act. If the goals do indeed meet this criterion -- and the theory builder can show this -- then the theory builder has an answer to the "ought" question. Your judgment and my judgment may, of course, differ as to which outcomes will better the environing society. But I shall have to leave that for another day, another paper, to be content that your judgment and mine both have some value and that, given the opportunity, we can resolve our differences.

My efforts at theory building in higher education have started from the definition of a theory offered by Kerlinger in his book, Foundations of Behavioral Research. A theory, according to Kerlinger, consists of:

...a set of inter-related constructs (concepts), definitions, and propositions that presents a systematic view of phenomena by specifying relations among variables, with the purpose of explaining and predicting phenomena.<sup>1</sup>

The Kerlinger definition calls for the theory builder first to identify a set of concepts which embraces a given phenomenon and then to define these concepts. From efforts of this sort undertaken earlier by W. H. Cowley, I have taken six concepts around which I attempt to build my theories. The six concepts and their definitions are as follows:

Outcomes - the products or results of the activities of institutions of higher education.

Institutions - the structures which perform higher educational activities: colleges and universities, trade schools, military schools, labor union schools, etc.

Goals - the purposes, intentions, objectives of institutions of higher education.

People - the individuals and groups of individuals involved in the activities of institutions of higher education.

<sup>1</sup> Kerlinger, F. N. Foundations of Behavioral Research. N.Y.: Holt, Rinehart and Winston, 1964. p. 11

Activities - the characteristic, goal-seeking functions of people in institutions of higher education: teaching, research, service, administration, and the various support activities which insure performance of these functions.

Environments - the settings wherein institutions of higher education pursue their goals.

As a definition of higher education itself, I offer the following:

Higher education consists of those activities committed to the conservation, transmission, and extension of the culture, activities which take place in structures characterized as post-secondary, as serving older adolescents and adults who seek to acquire the more complex skills and knowledge of their society.<sup>1</sup>

The inter-relatedness of the six concepts I have sought to develop in terms of one of them, the outcomes concept. If one were to explain or predict the outcomes of institutions of higher education, I have argued, he could do so by identifying their goals, the environments within which they function, the activities in which they engage, and the characteristics of the people who associate with them. Getting from this point to the actual phrasing of some theories for higher education then requires identifying which outcomes one would try to predict or explain and then asking what combinations of goals, environments, institutions, activities, and/or people are associated with these outcomes -- and to what degree. The remainder of this paper will explore the implications of such a quest.

Let me begin with theories relating to student development. Professors and parents are particularly concerned, for instance, about what students learn in college. In a study based on data from 6,855 students in 95 different colleges, Rock, Baird, and Linn provided the basis for propositions such

<sup>1</sup> Cowley, W.H. and Williams, Donald T. "The Meaning of Higher Education," The Educational Forum. May, 1969. pp. 497-509.

as the following:

- 1) Students learn more in the humanities when they attend institutions with selective admissions policies, high budgets, and a high percentage of students graduating within a four-year period.
- 2) Students learn more in the social sciences when they attend institutions with selective admissions policies, high budgets, a high percentage of students graduating within a four-year period, and a low percentage of students in the natural sciences.
- 3) Students learn more in the natural sciences when they attend institutions with selective admissions policies, high budgets, a high percentage of students graduating within a four-year period, and a high percentage of students in the natural sciences.<sup>1</sup>

Stated at a higher level of abstraction, these propositions lead to the theoretical statement that students' learning outcomes are related to the admissions policies, budgets, retention rates, and student subject matter preferences in the institutions they attend.

One can also postulate student development theories relating to affective outcomes. The massive review of the literature undertaken, for instance, by Feldman and Newcomb led to what one might call the accentuation theory. This theory relates student affective development to student characteristics at the time of admission and to characteristics of the institutions which serve to accentuate or extend these characteristics. Students' affective outcomes, in other words, are related to student characteristics at time of admission and to characteristics of the institutions they attend.<sup>2</sup>

If one turns to student career or skills outcomes attributable to higher education he can use the research of Astin and Panes to support propositions such as the following:

- <sup>1</sup> Rock, Donald A., Baird, Leonard L., and Linn, Robert L. "Interaction Between College Effect and Students' Aptitudes," American Educational Research Journal (Winter, 1972) pp. 149-161.
- <sup>2</sup> Feldman, Kenneth A. and Newcomb, Theodore M. The Impact of College on Students. San Francisco: Jessey-Bass, 1970.

- 1) The selection of a major or career in business, engineering, or teaching will more often occur in public, non-elective teachers' colleges or technical institutes where religious and social orientations are strong and the administrative style is non-permissive.
- 2) The selection of a major in arts, humanities, and social sciences, the decision to attend graduate school, and the selection of careers in college teaching, research, or the performing arts will often occur in private, highly selective institutions where the religious orientation is low, where the tolerance for drinking is high, and where the administrative style is permissive.
- 3) The selection of a career in the professions will occur more often in Southeastern universities or in all-male institutions.<sup>1</sup>

Thus student development outcomes in terms of a major or a career are related to the admissions policies, means of selection of trustees (the private vs. public dimension), religious orientations, administrative style, regional location, and the sex of students in the institutions they choose to attend.

An overview of the entire range of student development outcomes, then, would suggest that admissions policies (an activity), student characteristics at admission (a people variable), and characteristics of the institutions of higher education they attend account in large part for the student developmental changes which occur.

Institutions of higher education also pursue goals leading to the generation of new knowledge. One can begin the building of theories of higher education dealing with these new knowledge outcomes by looking at the work of Deutsch, Platt, and Senghaas. Limiting their analysis to the social sciences, these people made the following generalizations:

- 1) The modal age of the people associated with the sixty-two "major advances" in the social sciences has dropped since 1930 from 40-44 to 30-34.
- 2) The activity leading to these "major advances" has turned increasingly since 1930 from an individual to a team effort.

<sup>1</sup> Astin, Alexander W. and Panes, Robert J. The Educational and Vocational Development of College Students. Washington: American Council on Education, 1969.

- 3) The urban American university has provided the most frequent institutional setting for these advances.<sup>1</sup>

Thus the research outcomes of institutions of higher education would seem to be related to the age of their faculty (a people variable), the ability of that faculty to work in team efforts (an activities variable), and the proximity of the institutions to certain urban centers (an environments variable).

A third broad area within which I would hope to see theories of higher education arise has to do with the impact of higher education on its environmenting society. Fritz Machlup in his book, Education and Economic Growth, offers one basis for developing such theories, showing that increases in the "total national product" reflect the impact of higher education on the use of better labor and better machines.<sup>2</sup> One could then theorize that those institutions of higher education which will have the greatest outcomes in terms of impact on the "total national product" are those engaged in producing "better labor" and "better machines." These are variables most closely related to the goals and activities concepts.

In this paper I have attempted to offer in a form however so dim a conceptual framework on which to hang some theories of higher education. These theories, I have suggested, can be couched in the context of six major concepts: goals, environments, institutions, activities, people, and outcomes. Using the outcomes concept as the point of departure, as the dependent variable in a sense, I have explored the beginnings of some theories as they relate

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<sup>1</sup> Deutsch, Karl W., Platt, John, and Cenghaas, Dieter. "Conditions Favoring Major Advances in the Social Sciences," Science, February 5, 1971. pp. 450-459.

<sup>2</sup> Machlup, Fritz. Education and Economic Growth. Lincoln: University of Nebraska Press, 1970. pp. 5-16.



to (1) student development outcomes, (2) research outcomes, and (3) societal impact outcomes.

I hope I have convinced you that some potential does indeed exist for theory building in higher education. Much, much work requires doing, simply to collate the great mass of studies already completed and to put them into the conceptual framework here described. Furthermore, in the examples provided here, I have too often based my theoretical statement on a single study. Only when many studies begin to point in a single direction can the theories assume the power they will need. I would hope that among my listeners are those individuals who would share in that endeavor.

Illustrative of some of the directions these efforts must take are the interests of Professors Brody, Brubacher, and Cooper, who follow. The impact of undergraduate instruction and of the counter culture on the outcomes of higher education are critical to what I have tried to say here; and change in higher education -- an outcome in and of itself -- requires understanding in a theoretical context. I therefore look forward to hearing what these gentlemen will bring to the symposium.